

USE

VM-3V series valves are used to control fluids belonging to the group showed in the table in accordance to article 9 of 97/23/CE (PED) directive, in air-conditioning, thermoventilation and heating plants and in industrial processes; therefore, they cannot be used as safety valves.



MANUFACTURING CHARACTERISTICS

They consist in a 3-way valve body to be assembled on electrical bidirectional actuator, driving mechanical connection with elastic pin and position indicator.

MOTORIZED VALVES TECHNICAL CHARACTERISTICS AND PERFORMANCES

	VMB16 DN25÷150	VMS DN25÷65 3VSA DN80	VMSTS DN25÷65 3VSATS DN80	3VAA DN25÷125	3VAACP DN25÷125
Construction	PN16	PN25	PN25 ⁽³⁾	PN40 ⁽⁷⁾	PN40 ⁽⁷⁾
Body	cast iron	spher. cast iron	spher. cast iron	steel	steel
Seat	as above	stainless steel	stainless steel	stainless steel	stainless steel
Plug	forged brass	as above	as above	as above	as above
Stem (Ø 9mm.)	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
Control characteristic	direct w ay=equal perc. angle w ay= linear	direct w ay=equalp.(DN25÷65) linear (DN80) angle w ay= linear	direct w ay=equalp.(DN25÷65) linear (DN80) angle w ay= linear	linear	linear
Stem packing	Viton O-ring ⁽⁵⁾	Teflon V-ring	stainl. steel bellows	Teflon V-ring	⁽²⁾
Max fluid temp. °C	150	230	300	230	350
Min fluid temp. °C	-10 ⁽¹⁾	-10 ⁽¹⁾	-10 ⁽¹⁾	-10 ⁽¹⁾	-20 ⁽¹⁾⁽⁴⁾
Fluid (6)	Group 2	Group 2	Group 1	Group 2	Group 1
Connections	flanged PN16	flanged PN25	flanged PN25	flanged PN40	flanged PN40
Leakage	direct way 0,03				
Kvs %	angle way 2	0,02	0,02	0,02	0,02

⁽¹⁾ For applications with possible ice formation on stem and packing, see 245 accessory.

⁽²⁾ Graphite packing for high temperatures; forced lubrication on extended neck. Teflon packing for low temperatures, see ⁽⁴⁾.

⁽³⁾ Due to the bellows presence, the max applicable pressure must not be higher than 5 bar

⁽⁴⁾ For applications on fluids from -10 to -20 °C add letter B to the model name, e.g. 3VAACP50B. In such case the max temperature is 230°C

⁽⁵⁾ Double O-ring and graphite teflon scraper ring.

⁽⁶⁾ Group 1: water, overheated water, steam, diathermic oil.
For different fluids belonging to group 1, please contact our Sales Support.

Group 2: water, overheated water, steam.
For different fluids belonging to group 2, please contact our Sales Support

⁽⁷⁾ PN25 only for 3VAA125 and 3VAACP125

MAX DIFFERENTIAL AND CLOSE-OFF PRESSURE (bar) ***

DN mm	Kvs			VMB16					VMS				
	VMB16	VMS	3V	SH/ST	MVL	MVLA/C*	MVF58	MVF515	SH/ST	MVL	MVLA/C*	MVF58	MVF515
25R	4	4	4	15,5	16	8,1	9	16	25	25	12	14	25
25I	6,3	6,3	6,3	15,5	16	8,1	9	16	14,5	17	6	7	17
25	10	10	10	15,5	16	8,1	9	16	14,5	17	6	7	17
32	-	19	16	-	-	-	-	-	9,5	11,5	4	4,5	11,5
40R	19	-	-	8,7	10	4,6	5,2	10	-	-	-	-	-
40	25	25	22	8,7	10	4,6	5,2	10	7	8	2,8	3,2	8
50	40	40	32	5,6	6,5	3	3,4	6,5	4,5	5	1,8	2	5
65	63	63	70	3,3	3,8	1,7	2	3,8	2,5	3	1	1,1	3
80	100	-	110	2,1	2,5	1,1	1,2	2,5	-	-	-	-	-
100	130	-	140	1,4	1,6	0,7	0,8	1,6	-	-	-	-	-
125	200	-	250	0,9**	1	0,4	0,4	1	-	-	-	-	-
150	300	-	-	0,6**	0,7	0,3	0,3	0,7	-	-	-	-	-

DN mm	Kvs			VMSTS				3VSA				
	VMB16	VMS	3V	MVL	MVLA/C*	MVF58	MVF515	SH/ST	MVL	MVLA/C*	MVF58	MVF515
25R	4	4	4	5	5	5	5	-	-	-	-	-
25I	6,3	6,3	6,3	5	5	5	5	-	-	-	-	-
25	10	10	10	5	5	5	5	-	-	-	-	-
32	-	19	16	5	5	5	5	-	-	-	-	-
40R	19	-	-	-	-	-	-	-	-	-	-	-
40	25	25	22	5	3,8	4,3	5	-	-	-	-	-
50	40	40	32	5	2,4	2,7	5	-	-	-	-	-
65	63	63	70	3,5	1,3	1,5	3,5	-	-	-	-	-
80	100	-	110	-	-	-	-	1,9	2,2	0,9	1	2,2
100	130	-	140	-	-	-	-	-	-	-	-	-
125	200	-	250	-	-	-	-	-	-	-	-	-
150	300	-	-	-	-	-	-	-	-	-	-	-

DN mm	Kvs			3VSATS				3VAA/3VAACP			
	VMB16	VMS	3V	MVL	MVLA/C*	MVF58	MVF515	MVL	MVLA/C*	MVF58	MVF515
25R	4	4	4	-	-	-	-	19	7	8	19
25I	6,3	6,3	6,3	-	-	-	-	19	7	8	19
25	10	10	10	-	-	-	-	19	7	8	19
32	-	19	16	-	-	-	-	12	4,3	5	12
40R	19	-	-	-	-	-	-	-	-	-	-
40	25	25	22	-	-	-	-	7,5	2,8	3,2	7,5
50	40	40	32	-	-	-	-	5,5	1,9	2,2	5,5
65	63	63	70	-	-	-	-	3,2	1,1	1,2	3,2
80	100	-	110	2,2	0,8	0,9	2,2	2	0,7	0,8	2
100	130	-	140	-	-	-	-	1,3	0,4	0,4	1,3
125	200	-	250	-	-	-	-	0,8	0,3	0,3	0,8
150	300	-	-	-	-	-	-	-	-	-	-

NOTE In order to avoid wear between plug and seat, we recommend not to overcome the differential pressure as follows:
 VMB16 = 2 bar
 VMS = 8 bar
 3VAA/3VAACP = 12 bar

Kvs is the flow rate expressed in m³/h of water at a temperature between 5 °C and 40°C passing through a valve open at the nominal stroke with 100 kPa (1 bar) differential pressure.

* MVLA in emergency closes direct way; MVLC in emergency opens direct way.

** Only for ST actuator.

Note The max operating pressures at different temperatures for PN various classes must correspond to the UNI 1284 table.

OVERALL DIMENSIONS (mm)

Figure	Model	DN	L	H	h	Ø D	b	Ø d	Ø f	Holes	Weight Kg.	Stroke mm	Stem Ø mm	
<p>N4119</p>	VMB16 (PN16)	25	160	37	80	115	16	85	14	4	5,2	16,5	9	
		40	200	51	100	150	18	110	18	4	9,4	25		
		50	230	53	115	165	20	125	18	4	14	25		
		65	290	71	145	185	20	145	18	4	19,1	25		
		80	310	81	155	200	22	160	18	8	23,5	45		
		100	350	93	175	220	22	180	18	8	32	45		
		125	400	115	200	250	24	210	18	8	45,6	45		
<p>N4095</p> <p>VMS/3VSA/3VAA</p>	VMS (PN25)	25	160	103	137	115	18	85	14	4	8	16,5	12	
		32	180	113	159	140	20	100	18	4	12	25		
		40	200	116	162	150	20	110	18	4	14	25		
		50	230	119	171	165	22	125	18	4	18	25		
		65	270	130	190	185	24	145	18	8	25	25		
	3VSA (PN25)	80	310	166	207	200	26	160	18	8	42,8	45	9	
		3VAA (PN40)	25	160	132	140	115	17	85	14	4	12,4	16,5	9
			32	180	147	157	140	17	100	18	4	18,2	25	9
			40	200	150	160	150	17	110	18	4	21,6	25	9
			50	230	153	172	165	19	125	18	4	26	25	9
65	270		169	190	185	21	145	18	8	36	25	9		
<p>N4132</p> <p>VMSTS/3VSATS/3VAACP</p>	3VAA (PN40)	80	310	182	207	200	23	160	18	8	47,8	45	9	
		100	350	163	247	235	24	190	22	8	55	45	12	
		125	400	182	282	270	26	220	25	8	78	45	12	
		VMSTS (PN25)	25	160	258	137	115	18	85	14	4	10	16,5	12
			32	180	264	159	140	20	100	18	4	15	25	
3VSATS (PN25)	40	200	265	162	150	20	110	18	4	17	25	9		
	50	230	274	171	165	22	125	18	4	21	25			
<p>N4132</p> <p>VMSTS/3VSATS/3VAACP</p>	3VAACP (PN40)	65	270	284	191	185	24	145	18	8	29	25	9	
		80	310	397	207	200	26	160	18	8	45,6	45		
		25	160	257	140	115	18	85	14	4	15,7	16,5		
		32	180	272	157	140	18	100	18	4	22,3	25		
		40	200	275	160	150	18	110	18	4	25	25		
		50	230	276	172	165	20	125	18	4	29,7	25		
		65	270	294	190	185	22	145	18	8	39,3	25		
		80	310	307	207	200	24	160	18	8	50,8	45		
100	350	288	247	235	24	190	22	8	67	45				
125	400	311	282	270	26	220	25	8	98,6	45				

The performances stated in this sheet can be modified without any prior notice due to design improvements

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DBL080E



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